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APPLICATION NO.		FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.		
10/718,320 11/19/2003		11/19/2003	Chunyuan Chao	M-15208 US	1058		
32605	7590	08/29/2006		EXAM	EXAMINER		
		WOK CHEN & Y DRIVE, SUITI	DEO, DUY VU NGUYEN				
SAN JOSE,			ART UNIT	PAPER NUMBER			
				1765			
				DATE MAIL ED: 09/20/2006			

Please find below and/or attached an Office communication concerning this application or proceeding.

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Advisory Action Before the Filing of an Appeal Brief

Application No.	Applicant(s)		
10/718,320	CHAO ET AL.		
Examiner	Art Unit		
Duy-Vu N. Deo	1765		

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	Duy-Vu N. Deo	1765	
The MAILING DATE of this communication appe	ears on the cover sheet with the c	orrespondence add	ress
THE REPLY FILED 14 August 2006 FAILS TO PLACE THIS A	PPLICATION IN CONDITION FOR	ALLOWANCE.	
 The reply was filed after a final rejection, but prior to or or this application, applicant must timely file one of the follow places the application in condition for allowance; (2) a Notal Request for Continued Examination (RCE) in compliant time periods: The period for reply expires 3 months from the mailing date 	wing replies: (1) an amendment, aff otice of Appeal (with appeal fee) in o ce with 37 CFR 1.114. The reply mo	idavit, or other evider compliance with 37 C	nce, which FR 41.31; or (3)
b) The period for reply expires on: (1) the mailing date of this A no event, however, will the statutory period for reply expire I	ater than SIX MONTHS from the mailing	g date of the final rejecti	on.
Examiner Note: If box 1 is checked, check either box (a) or TWO MONTHS OF THE FINAL REJECTION. See MPEP 7	06.07(f).		
Extensions of time may be obtained under 37 CFR 1.136(a). The date have been filed is the date for purposes of determining the period of ex under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the set forth in (b) above, if checked. Any reply received by the Office late may reduce any earned patent term adjustment. See 37 CFR 1.704(b) NOTICE OF APPEAL	tension and the corresponding amount shortened statutory period for reply orig r than three months after the mailing da	of the fee. The appropri inally set in the final Offi	iate extension fee ce action; or (2) as
2. The Notice of Appeal was filed on A brief in comp filing the Notice of Appeal (37 CFR 41.37(a)), or any external a Notice of Appeal has been filed, any reply must be filed <u>AMENDMENTS</u>	nsion thereof (37 CFR 41.37(e)), to	avoid dismissal of th	is of the date of e appeal. Since
3. The proposed amendment(s) filed after a final rejection, (a) They raise new issues that would require further co (b) They raise the issue of new matter (see NOTE below	nsideration and/or search (see NO		ecause
(c) They are not deemed to place the application in be appeal; and/or	tter form for appeal by materially re		the issues for
(d) They present additional claims without canceling a		ected claims.	
NOTE: <u>See Continuation Sheet</u> . (See 37 CFR 1.1	* **		
4. The amendments are not in compliance with 37 CFR 1.1 5. Applicant's reply has overcome the following rejection(s)		mpliant Amendment	(PTOL-324).
			A
6. Newly proposed or amended claim(s) <u>4-10</u> would be allo non-allowable claim(s).	wabie ii submitted in a separate, tii	nely filed amendmen	t canceling the
7. For purposes of appeal, the proposed amendment(s): a) how the new or amended claims would be rejected is pro The status of the claim(s) is (or will be) as follows: Claim(s) allowed: Claim(s) objected to: 4-10. Claim(s) rejected: 1-3,11-26 and 34-37. Claim(s) withdrawn from consideration:	⊠ will not be entered, or b) □ will will will will will will will wi	l be entered and an e	explanation of
AFFIDAVIT OR OTHER EVIDENCE			
 The affidavit or other evidence filed after a final action, but because applicant failed to provide a showing of good an was not earlier presented. See 37 CFR 1.116(e). 	t before or on the date of filing a No d sufficient reasons why the affidav	otice of Appeal will <u>no</u> it or other evidence is	t be entered necessary and
9. The affidavit or other evidence filed after the date of filing entered because the affidavit or other evidence failed to of showing a good and sufficient reasons why it is necessar	overcome <u>all</u> rejections under appea y and was not earlier presented. S	al and/or appellant fai ee 37 CFR 41.33(d)(1	ls to provide a 1).
10. The affidavit or other evidence is entered. An explanatio REQUEST FOR RECONSIDERATION/OTHER	n of the status of the claims after e	ntry is below or attach	ied.
 The request for reconsideration has been considered bu <u>See Continuation Sheet.</u> 			nce because:
12. ☐ Note the attached Information Disclosure Statement(s).13. ☐ Other:	(PTO/SB/08 or PTO-1449) Paper N	lo(s)	
			00
		Duy-Vu N Deo Primary Examiner	70

Art Unit: 1765

Continuation of 3. NOTE: the limitations in claim 23 would require further consideration.

Continuation of 11. does NOT place the application in condition for allowance because: 1. In response to applicant's arguments, the recitation of forming vias through an interlayer dielectric region of a monolithically integrated device or a contact forming method (claim 34) has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See n re Hirao, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and Kropa v. Robie, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

Referring to applicant's argument that Tsai '418 teaching of the aperture size to "as narrow as about 0.3 microns" would guide artisans away from considering such a technique for smaller dimensions is found unpersuasive because that is just teaching a way of forming the vias not teaching away from considering forming a smaller dimensions.

Referring to applicant's argument to claim 3, Tsai might be silent about the CF4 constitutes a source of etch inhibitor which selectively adheres to organic surfaces. However, since the etchant used includes fluorocarbon species, which is similar to that of the claimed invention, it would also provide source of etch inhibitor which selectively adheres to organic surfaces.

Referring to applicant's argument about claims 13-16, Tsai describes etching the nitride layer to form a plurality of third openings form the second openings (col. 8, line 18-30).

Referring to applicant's argument that Hui describes that ARC has reflective properties is noticed by the examiner. However, any organic or inorganic "ARC layer" would still reflect light in a lesser degree since they're obviously seen on the substrate. Therefore, an organic "ARC" layer still have a reflective property. Therefore, at the time of the invention, using any of these ARC materials would be obvious and with an anticipated of an expected result of reducing the light reflect from the substrate.

Referring to applicant's argument that Tsai '418 doesn't teaching the step of filling the contact holes with an electrical conductor or Chien doesn't provide tapered ARC, in response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See In re Keller, 642 F.2d 413, 208 JSPQ 871 (CCPA 1981); In re Merck & Co., 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Referring to claim 26, during the fabrication of the semiconductor device, the pattern is used to make thousands of contact holes. It is not known that a pattern can provide an exact plug spacings or spacings between corresponding conductive lines dues to the limitation and the error during the process. Therefore, the methods of Hui or Tsai would provide different plug spacings and/or spacings between conductive lines.

Applicant's argument about Chien and Tsai is acknowledged. However, there is no rejection over the combination of Tsai and Chien.

Referring to applicant's about the combination of Hui and Chien, applicant has not traversed the reason for combining, which is to each the silicon dioxide with a high selectivity to the under or lower layer such a silicon nitride layer..